



Instructional Technology Newsline

Department of Elementary and Secondary Education

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<http://dese.mo.gov/divimprove/instrtech/newsletters>

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Budgets / Grant Programs

Technology Acquisition Grant (TAG) Program

The Governor's proposed FY05 budget, released on January 21, 2004, did not fund (reinstate) the Technology Acquisition Grant Program.

Technology Network Program (TNP)

The Governor proposed level funding of MOREnet programs and services for schools, colleges and universities. DESE and MOREnet staffs are discussing "deliverables" for next year's TNP, with application packets expected to be mailed to districts in late April/ early May.

Safe Schools Grant Program

2003-2004 – The Department was notified last month that Governor Holden released some of the "withholding" funds. As a result, the Department is able to increase the FY04 grant awards. A letter was mailed to Safe School and Pilot School grant contacts explaining the increase and how to apply

for the additional funds. The deadline for requesting the additional funding is March 31 – which is also the last date to obligate funds for the purchase of equipment and materials and supplies.

2004-2005 – Assuming that Governor Holden’s FY05 budget (that proposed level funding of Safe Schools) passes, the Department decided to renew existing programs for continued support in FY05. As such, application materials were mailed to grant contacts on February 9. The application deadline is April 1.

Title IID “Ed Tech” Program

2003-2004 – The deadline for obligating funds for the purchase of equipment and materials and supplies is March 31.

2004-2005 – Applications for the competitive Title IID grants are due March 31, 2004. These funds are earmarked to help district participation in the eMINTS professional development program. Approximately 80 people, representing 51 districts, attended the information workshop held in Jefferson City on February 23. For more information about the competitive Title IID grants, visit <http://dese.mo.gov/divimprove/instrtech/federalfunded/TitleIID/index.htm>.

Census of Technology / Core Data Screens 30 and 31

2004 – (Sample surveys and item explanations are posted on the Instructional Technology website.) The 2004 Census of Technology (COT) is collected via Core Data, Screens 30 and 31, during the April Cycle. The deadline for submitting the data is April 15. The screens should become available for data entering by mid-March.

2003 – The abbreviated district reports and the state summary report of the 2003 COT are posted on the IT website at <http://www.dese.state.mo.us/divimprove/instrtech/statefunded/census/index.htm>.

District Technology Plans

Nearly 70 districts must have their long-range education technology plans re-approved by the state this spring. New and/or substantially updated plans are to be submitted to DESE Instructional Technology section by March 31, 2004. Once the plan is developed and board-approved, attach a copy of the Department’s District Technology Plan Review/Approval form to the front of the plan. Complete the form’s district information section and mail both the plan and scoring guide to IT by March 31. A panel of readers will review the plans in Jefferson City on April 15-16, 2004. (Contact the Instructional Technology office to learn more about becoming a district tech plan reader/evaluator.) Approval status letters will be mailed to districts during the first week of May.

FYI – Article on “Drafting a Customized Tech Plan: An Up-to-the-Minute Design”

The February 15 Tech-Learning issue showcased several articles on the importance of technology planning. The lead article, written by Gwen Solomon, discusses how technology planning in context with the NCLB, budgets, and day-to-day challenges. Other articles provide tips for developing success technology programs, reports from four veteran educators on the “what, why, and how” of their tech plan designs, examples of high tech schools, and a web tour of technology planning sites.

See: <http://www.techlearning.com/shared/printableArticle.jhtml?articleID=17602669>

E-rate Program

Funding Year 2003 – Wave 23 for E-rate funding for funding year 2003 (July 1, 2003-June 30, 2004) will be issued on Wednesday, March 3, 2004. In this wave, the SLD will be committing nearly \$385 million in 2,442 letters to school and library applicants. The funding associated with this wave included funding for priority 1 (telecommunications and Internet access) at all discount levels and for priority 2 (internal connections) at the 70% to 90% discount level. To date, the SLD has committed nearly \$2.1 billion in over 32,300 letters for funding year 2003. Additional waves will be issued every other week until the process is complete. Visit the E-rate website at <http://www.sl.universalservice.org/default.asp>.

Funding Year 2004 – The Form 471 Window closed on February 4, 2004.

Recent Developments – House Commerce Committee Chairman Billy Tauzin (R-LA) announced he was stepping down from his position while he decided whether to take a new job outside of Congress.

His resignation calls into question whether the current waste, fraud and abuse investigation that he launched will continue and lead to any hearings. The incoming Chair, Joe Barton (R-TX), has given no indication of whether he will continue to pursue the investigation or hold hearings. While Rep. Barton's views on telecommunications in general and the E-rate in specific are unknown, he has agreed with Senator Ted Stevens (R-AK), who will assume the chair in the Senate Commerce Committee in 2005, that overhauling the Telecommunications Act should be a priority for the next Congress.

Just prior to Rep. Tauzin's announcement, the OMB (Office of Management and Budget) offered a very negative review of the E-rate program as part of its ongoing review of the performance of all federal programs. Rating the E-rate as not demonstrating results, OMB assigned very low marks to the planning and management of the program and even lower marks for the program's results and accountability. Specifically, OMB complained that while the program had been successful in promoting Internet connectivity, "it lacks long-term, outcome-oriented performance goals against which to measure this success and to improve and refine the program going forward." OMB also noted the program for the multiple investigations into waste, fraud and abuse matters that it is enduring and for the lack of data showing the program provides educational benefits. While it is unclear what steps, if any, this review will engender, it is expected that the FCC will take the lead in efforts to address these alleged shortcomings.

In addition to handling the OMB assessment, the FCC will be fully occupied with reviewing filings from the most recent proposed rulemaking issued in late December. Among the issues on which the rulemaking seeks comments are: lowering the top level discounts for internal connections, eliminating the Form 470 posting process, redefining rural areas and Internet access, and changing the current rules on wide area networks. Initial comments on the rulemaking are due on March 11, with reply comments due April 12.

For more details on the rule changes and other E-rate news, subscribe to the list and read the email communiqués from Jeanne Sullivan at MOREnet.

Washington News / Update

FY04 Appropriations – Days before the Administration released its proposed budget for FY05, Congress finally completed work on and the President enacted the FY04 Omnibus Appropriations bill that included final funding figures for all federal education programs. While education appropriations overall ended up in the plus column, with total spending increasing by \$2.5 billion over FY03 levels and major programs like Title I and IDEA receiving solid funding increases, technology programs endured another year of program eliminations and deep funding cuts. The Preparing Tomorrow's Teachers to Use Technology (PT3) program, which barely survived de-funding efforts in FY02, received no money for FY04. The Star Schools and Community Technology Centers (CTC) programs sustained major budget cuts in FY04, possibly setting up each program for elimination in FY05. Below is a summary of the final numbers for FY04 education funding that includes the 0.59% across-the-board reduction that Congress inserted into the bill to pay for funding increases:

Program	FY03	Budget Request	FY04 Omnibus
Title I	\$11.684 billion	\$12.35 billion	\$12.34 billion
Professional Dev.	2.93 billion	2.85 billion	2.93 billion
21 st Century	994 million	600 million	999.1 million
Reading First	994 million	1.150 billion	1.024 billion
Literacy through School Libraries	12 million	28 million	19.8 million
Ed Tech	695.5 million	700.5 million	691.8 million
PT3	62.1 million	0	0
Star Schools	27.3 million	0	20.4 million
CTC	32.3 million	0	9.9 million
Title V, Part A	382.5 million	385 million	296.5 million

FY05 Appropriations – The administration released its proposed FY05 budget request on February 2. Facing continuing costs from military operations abroad, mounting costs for security at home, and a \$500 billion federal deficit, the Administration offered a budget request that seeks only a 0.5%

increase overall in non-defense and non-homeland security spending. Below is a snapshot of the FY05 Administration's budget proposal.

Program	FY04 Omnibus	FY05 Admin. Budget Request
Title I	\$12.34 billion	\$13.3 billion
Professional Dev.	2.93 billion	2.93 billion
21 st Century	999.1 million	999 million
Reading First	1.024 billion	1.1 billion
Literacy through School Libraries	19.8 million	19.8 million
Ed Tech	691.8 million	692 million
PT3	0	0
Star Schools	20.4 million	0
CTC	9.9 million	0
Title V, Part A	296.5 million	296.5million

St. Louis to Host National Leadership Summit – (Reminder) The U.S. Department of Education (ED) is sponsoring three "No Child Left Behind Leadership Summits" intended to provide technical assistance to state and local education leaders on how technology can assist the implementation of NCLB. To be held during the spring and summer of 2004, the goals of the summits are to provide states and districts with the foundational knowledge and tools to implement NCLB; allow state and district-level team participants an opportunity to work together to develop an understanding of effective ways to implement NCLB using technology solutions; build state and districts' capacity for promoting and sustaining effective professional development in the selection and effective use of technology tools; and engage states and large school districts in a national movement to improve academic achievement for all students through the appropriate and effective use of technology. The first Summit, "Empowering Accountability and Assessment Using Technology," will be held at the Millennium Hotel in St. Louis on March 10-12, 2004.

See: <http://www.nclbtechsummits.org/>

Ed Tech Research, Publications, Resources

SETDA to release *National Trends: Enhancing Education Through Technology: No Child Left Behind Title II D – Year One in Review*

In early March, the State Educational Technology Directors Association (SETDA) will release the report, "National Trends: Enhancing Education Through Technology." The report is based upon the State Profile Survey completed by 46 states and the District of Columbia, documenting trends in the use of Title II D funds among the states and highlighting several programs and initiatives within the states.

See: <http://setda.org>

Federal Funding for Educational Technology and How It Is Used in the Classroom: A Summary of Findings from the Integrated Studies of Educational Technology

The U.S. Education Department (ED) contracted with SRI International, the American Institutes for Research (AIR), and the Urban Institute to conduct the Integrated Studies of Educational Technology (ISET). ISET consisted of a set of state, district, schools, and teacher surveys designed to provide nationally representative information on federal funding for, and uses of, educational technology (TLCF and E-rate). This issue briefly summarizes major findings from the three final reports that ISET produced.

See: <http://www.ed.gov/rschstat/eval/tech/iset/summary2003.pdf>

Identifying and Implementing Educational Practices Supported By Rigorous Evidence: A User Friendly Guide

ED developed this guide to provide educational practitioners with user-friendly tools to distinguish practices supported by rigorous evidence from those that are not.

See: <http://www.ed.gov/rschstat/research/pubs/rigorousvid/index.html>

New Website Addresses *The Essential Digital Literacy Skills for the 21st Century Global Citizen*

This Website is the "public face" of a fast growing international movement focused on promoting information and communication technologies (ICT) digital literacy. The resources are intended to build awareness, encourage debate, and promote the importance of digital literacy. They provide practical information for business, government, and educational leaders, and encourage communication by employing technology tools in the most collaborative sense. See: <http://www.ictliteracy.info/>

Research on a Laptop/Wireless School District

The report "Quaker Valley Digital School District: Early Effects and Plans for Future Education" presents a limited evaluation of the implementation and impact of a district-wide educational technology initiative involving provision of laptop computers to children in grades 3-13 and wireless Internet connections at schools and homes. The findings lead to a set of recommendations for future implementation and a conceptual framework and research design for use in conducting a more comprehensive future evaluation. When students have laptops and access to wireless Internet services, they develop technical skills and are more engaged in learning activities. However, this study finds negative consequences, including inappropriate and excessive use of the technology and, surprisingly, an increased workload on the part of teachers and administrators. For an online copy, see: <http://www.rand.org/publications/TR/TR107/>

Guide to Successful Public-Private Partnerships Released

The Center for Digital Government and Center for Digital Education, national research and advisory institutes on information technology, issued a report, called "Essential Partnerships: A Guide to the Successful Creation of Public-Private Partnerships" that includes case studies, best practices and management techniques in government and education. Written by Rhonda Wilson. See: <http://www.centerdigitaled.com/converge/?pg=magstory&id=83747>

NCLB School Information Partnership (SIP) Launches Website

A new website displays results from testing required by NCLB. Data include statistics about the percentage of students who are economically disadvantaged and the numbers of students who are not making AYP progress in reading and math. Data are currently available for six states: Delaware, Florida, Minnesota, Pennsylvania, Virginia, and Washington. ED officials hope to publish data from all 50 states, with the majority having their data online by summer. SIP is supported by the federal government and the Broad Foundation. See: <http://www.schoolresults.org/>

Pew Survey on Rural Access to the Internet

The Pew Internet and American Life Project released results of its recent survey findings on Internet Penetration. They found that 52% of rural Americans are now using the Internet but the gap between rural and suburban and urban communities has remained constant over time. Internet penetration rates have been lower in rural areas, remaining 10 percentage points behind the nation average in each of the last four years. Living in rural areas in itself has little or no influence as to whether one goes online, but low-income residents in rural areas are less likely to be online than low-income people living in urban and suburban areas. Also, significant increases in Internet penetration accompany increasing levels of educational attainment until leveling off after completion of a four-year degree. Once exposed to some education, the likelihood of a rural resident going online is more or less equal to the likelihood of a similarly education suburban resident. See: <http://www.pewinternet.org/index.asp>

National Survey of Teachers, Principals, and Parents on School Leadership

MetLife released results of its annual survey that examines the attitudes and opinions of teachers, principals, parents and students regarding school leadership. Secretary of Education Rod Paige made the keynote speech at its release at the national Press Club. "The MetLife Survey of the American Teacher: An Examination of School Leadership" finds that principals, teachers, and parents agree that the primary goal of school leadership is motivating students and teachers to achieve. The survey also reveals a disconnect between this goal and reality. Principals have a more positive view of school atmosphere and relationships than do parents, teachers, and students. The survey examines these differences in perception. See: <http://www.metlife.com/teachersurvey/>



METPA Forum: No Child Left Behind and Technology

--Submitted by Traci Ingram, METPA President, Technology Director, Monett R-1 Schools
<http://www.metpa.org>

If you're not a new or returning member to the Missouri Educational Technology Professionals' Association (METPA), there's still time to join for the low annual fee of only \$25! You can see the METPA Web site for a membership form (<http://www.metpa.org>). Or, better yet, stop by the METPA table at the spring technical conference, Tan-Tar-A, on March 24-25.

In addition to having an informational table at the spring technical conference, METPA is planning a general meeting for all members, and we're going to try to turn this into a fun event as well. Details to follow via e-mail to members and the METPA Web page.

Don't forget to apply for one or both of METPA's two annual awards: Outstanding District, School, or Classroom Web Page and Best Practices in Technology Professional Development. Application forms will be available at the METPA table at the conference or available from the METPA Web site beginning March 24 (<http://www.metpa.org>). You can view information concerning previous award winners as well on the METPA site.

METPA is sponsoring an informational forum that will be repeated as a session at the spring technical conference. The title of the presentation is "Technology and No Child Left Behind." The Forum will broadcast over ITV from the MOREnet building in Columbia, Missouri on March 10, 2004. The Forum will run from 9:30 AM till 12:00 noon. The session will assist schools in using their federal funds to best meet the demands the new law is placing on them. There will be an overview of the NCLB law as it pertains to technology provided by Randy Rook, Director of Federal Grants Management, DESE, and examples of how to use federal funds for technology presented by David Dillard, Federal Programs Coordinator for Arcadia Valley R-II Schools. Melanie Dillard from Central R-III will also be presenting.

Remote broadcast sites are:

Southeast RPDC in Cape Girardeau 800-401-6680 or 573-651-5161
South-Central RPDC in Rolla 573-341-6473 or 800-667-0665
Northeast RPDC in Kirksville 888-878-7732
Northwest RPDC in Maryville 800-663-3348 or 660-562-1995
Webb City High School (contact Traci Ingram at Monett Schools, 417-235-0646)
Southwest RPDC in Springfield 417-836-8888 or 800-735-3702
Cooperating School District (CSD) in St. Louis 800-835-8282

There will also be limited seating at the MOREnet building in Columbia.



News From MOREnet

--Submitted by Eric Nicklas, Program Manager, K-12 Technology Network Program, MOREnet
<http://www.more.net/conferences/spring2004/>

MOREnet Spring Technical Conference: Connections 2004

The Spring Technical Conference is scheduled for March 24-25, 2004, at Tan-Tar-A in Osage Beach, Mo. Online registration closes March 12.

This conference is open to all staff from MOREnet organizations. You do not have to be a "MOREnet Contact" to attend Connections 2004.

Security of computers and networks is the primary focus of this year's conference. Session topics include, but are not limited to, Linux, NetWare, firewalls, wireless networking and network traffic analysis. See the complete schedule of presentations at the conference website:
<http://www.more.net/conferences/spring2004/>.

MOREnet Computer Security Tip of the Month: Anti-virus is Your Best Friend

Over 50 percent of DESE security events handled in the last six months by MOREnet Security were virus related. A single virus in your school can cause damage to outside computers and slow down the statewide MOREnet network. While nearly all customers follow the best practice of running anti-virus, keeping anti-virus levels current is critical. Customers should strongly consider using anti-virus products that have a central management console that permits one person to update all anti-virus installations in the school with a few clicks. Anti-virus updates should be downloaded automatically from the central management console rather than directly from the vendor, since downloading anti-virus updates from the vendor to all computers in the school at the same time can cause significant network slow downs.

For other anti-virus tips, visit MOREnet's Virus Frequently Asked Questions:
<http://www.more.net/security/virus.html>

Coming in April

- 2004-05 MOREnet K-12 Technology Network Program information
- Status of content filtering on MOREnet's backbone as a service option
- NetSmartz Internet safety program.

National Cyber Security Day—April 4, 2004

--Submitted by *Lainie Martin, Web Development, DESE*
<http://dese.mo.gov/divadm/infotech/cybersecurityday.htm>

Sunday, April 4, 2004 is National Cyber Security Day. Set some time aside to update your anti-virus software and scan your computer for viruses. This is also a good opportunity for schools to incorporate cyber security into school curricula. Check out the Web site for resources on the following:

- Cyber Security Day Information
- Top Ten Security Tips
- Cyber Security Posters--Elementary and Middle School--Teens
- Free K-8 Cybersmart Curriculum

Show-Me TechKnowledge Day 2004

--Submitted by *Sally Burnett, Show-Me TechKnowledge Chairperson*



"Having a great time, wish you were here!" were the sentiments of those attending the third annual Show-Me TechKnowledge Day. Well over 200 exhibitors and guests mingled in the Rotunda of the State Capitol on February 18th as twenty-one student groups (and their teachers) from across the state, grades 1 – 12, exhibited and explained their classroom projects. Guests visiting the exhibits included a large number of elected representatives. Students enjoyed being introduced to the legislature, and tours of the capitol. Several student groups lunched with their respective legislators. Exhibitors and guests enjoyed a continental breakfast served onsite. A professional videographer was present to document the day's activities. At the end of the day, each group of exhibitors was presented with a plaque for their participation in the event to take back to their school.

The mission of Show-Me TechKnowledge is to establish one day each year in which to celebrate and showcase student learning that is facilitated, improved, or accelerated through the use of education technologies. A grassroots organization, Show-Me TechKnowledge helps identify and support students as they exhibit effective and innovative uses of technology. State leaders, policy-makers and

others are invited to the Capitol Rotunda to view the exhibits, talk to the students, and learn how education technology positively impacts teaching and learning.

Governor Holden issued a proclamation acknowledging the accomplishments of Missouri students. He declared February 15 through February 21, 2004 as Missouri Technology in Education Week.

Congratulations to all our student exhibitors and their teachers. Thanks to all committee members for their time and efforts. They did an outstanding job in making this an event to remember. Thanks to event sponsors for making the student technology showcase possible.

For those of you who missed out on the fun and excitement this year, consider submitting an application to exhibit in 2005.

Award Honors Outstanding Teachers

www.usatoday.com/news/education/2002-11-04allstars_x.htm

The annual All-USA Teacher Team, sponsored by USA TODAY, honors 20 outstanding teachers, including both individuals and instructional teams. Full-time, certificated teachers and instructional teams actively teaching kindergarten to twelfth grade at a public or private school in the United States or its territories, as well as Department of Defense schools overseas, are eligible for the award. Teachers must be nominated by someone willing to put in writing why the nominee is outstanding. Individual nominees must have at least four years of full-time teaching experience, counting the 2003-2004 school year. Each All-USA Teacher first team member will receive \$500, with the balance of the \$2,500 award going to the school. The deadline for submitting nominations is April 19, 2004. Visit the website for more information and to access the nomination instructions.

Online Resource - Special Education and Diverse Learners

Check out the Missouri Innovations in Education, January 2004. It is now available online at <http://www.cise.missouri.edu/publications/innovations/january-2004/index.html>. This issue focuses on using research-based strategies to improve student achievement. Teaching choice making and self determination, evaluating and implementing strategies, graphing and analyzing behavioral data to guide strategy selection, and preparing students for competitive employment are some of the topics addressed in this month's issue. Formerly provided in print, this newsletter is now available in a web-based format only. Missouri Innovations in Education is published by the Center for Innovations in Education four times each year: September, November, January and April. Innovations is acknowledged throughout Missouri as a valuable source of information about educating diverse learners.

2004: An Odyssey of Learning

The Missouri Distance Learning Association (MoDLA) will host *2004: An Odyssey of Learning*, the annual summer distance learning conference, July 15-16, 2004, at the Clarion Hotel, in Springfield, MO. The conference is designed to provide educators, administrators, technology coordinators and others interested in distance education, information on current trends in instruction, and information on the latest instructional technologies along with a multitude of exemplary presentations of distance learning strategies in action.

Conference Location

2004: An Odyssey of Learning will be held at the Clarion Hotel, Springfield, MO. Participants may reserve rooms at the special conference rate of \$64.95 until July 1. For information or reservations, contact Clarion Hotel at (417) 883-6550.

Conference Features

Keynote Speaker

Thursday, July 15 - "Educational Evolution: The One-Room School House meets the Virtual Classroom"

Dr. Jim Baker, Assistant to the President, Southwest Missouri State University

Friday, July 16 - "Thriving or Surviving in Difficult Economic Times"

Dr. Ed Gould, Department Chair, Higher Education Leadership, School of Education Capella University President, Beacon Resource Group, Higher Education Consultants

Breakout Sessions

TBD

Vendor Fair

The vendors will be available from 1:30 PM - 6:30 PM on Thursday, July 15 and 8:00 AM - 4:00 PM on Friday, July 16 to give attendees the opportunity to view and discuss the latest distance learning technologies. The Vendors will help kick off the conference with a Vendor Reception from 4:30 PM- 6:30 PM, Thursday, July 15.

Virtual Field Trips

Throughout the day, attendees will have the opportunity to participate in a variety of live videoconferences with a variety of presenters at different locations around the world.

Silent Auction

Visit the Silent Auction and browse through the donations and take the opportunity to enter a bid on one or more items. The Auction will continue for the duration of the conference so you will have the opportunity to return often to see if someone has upped the ante. The Silent Auction will close at 1:00 PM, July 16.

Cyber Cafe

The Cyber Cafe will be open for the duration of the conference for attendees to have the opportunity to check email and web sites.

More Information

For more information, contact the MoDLA Office at 417-836-6150 or by email through the MoDLA director MichelleNorgren@smsu.edu



Orbital Data Net

—Submitted by Greg Heifner, Chief Executive Officer, Orbitall Data Net, Inc.

www.orbitaldata.net

Orbital Data Net spends considerable time in researching the technologies that an organization can tap in order to efficiently communicate. Our satellite based VSAT technology allows us to extend our services virtually anywhere, but that was only the beginning. One means of gaining additional Internet flexibility and ease of use is already right in front of you; actually it lays within your walls. *It's your existing electrical wiring.*

Powerline Communications Deliver the Internet

The concept is called Powerline Communications (PLC), a remarkable networking technology that is poised to change the way we access the Internet in large structures, and the way your organization can invest in networking technologies to provide Internet access. PLC isn't brand new; it has been in various stages of development for over a decade. What is new is the use of PLC technology to deliver the Internet in large structures, including schools and other large commercial buildings. The basic concept behind PLC is the use of existing electrical wiring, present in almost all buildings today regardless of usage, to carry high-speed data communications signals. Essentially, this technology turns ordinary electrical receptacles into network access ports. A special device called a "gateway" helps distribute the Internet signal through the building's electrical wiring. Portable PLC modems that connect to desktop or laptop computers feature an ordinary electrical plug on one end. The user

gains instant Internet access by simply plugging the special modem into any electrical outlet in the room and plugging the modem's Ethernet connection into their laptop or desktop.

Initial attempts at utilizing the electric lines for communications were focused outside the buildings over the high voltage power lines. These early attempts were unsuccessful due largely to roadblocks, such as transformers and noise interferences as well as legislative hurdles. This concept has been successful however in large commercial buildings and homes.

An Internet Access Strategy

The greatest challenge since the development of PLC technology is the tendency for signal distortion or interference over larger distances. This is why this technology has been easier to implement in buildings. Orbital Data is offering a product that solves this signal distortion problem. The PlugPlus Internet system uses a patent-pending technology to transmit Internet signals inside very large commercial structures – such as hotels, schools, and office buildings – without distortion or interference, putting practical, easy-to-use PLC solutions within reach of businesses for the very first time. These days, students in particular require Internet access during a portion of the school day, sometimes in rooms or areas not reached by traditional network wiring, if there is any at all. PLC can solve the traditional problem of the Internet not being accessible in a flexible manner. Convenience, flexibility, and portability are the watchwords for providing an Internet access strategy in buildings today. Fortunately, products like the PlugPlus Internet systems are built on such key benefits. And it isn't only the users that stands to benefit.

Offering a Flexible Advantage

High-speed access to the Internet in *any* room, resource center or computer lab is a distinct advantage. Many organizations today still lack a totally comprehensive Internet access strategy for their users, so organizations that offer systems such as Orbital Data's PLC solution are ahead of the game.

Another benefit of installing a PLC system lies with the installation process itself. Unlike the other available options, installing the PlugPlus Internet system involves the installation of a gateway, which is coupled to the buildings electrical service panel and connected to a circuit breaker. No additional wires or cabling need to be strung through the building – a boon to older structures where damage could easily result from installation of wiring. Organizations can simply pre-equip rooms with the special PLC modems or place them on transportable A/V carts along with a small network router. Installation can generally be accomplished in less than one day for most 75 to 150-room buildings, representing a significant advantage when compared with other Internet access solutions. The best part: no disruption to the staff.

Wireless Connectivity Issues

One of PLC's main competitors is wireless connectivity. Orbital Data designs and distributes wireless solutions to many businesses but, while wireless, at first glance, looks quite useful as a connection technology for schools, comparisons between wireless and PLC reveal striking differences. A big difference is that wireless systems are not as secure; users using wireless connections risk having their data co-opted by others in the vicinity with wireless devices. In addition, wireless options do involve some installation of wiring; the "wireless" part relates only to the freedom from a wire at the laptop or desktop level. In fact, wireless systems do require the installation of wires within the buildings walls to create a Wi-Fi network infrastructure. This could be a problem for organizations where disruption could result in lost classroom time, or where a historic building designation creates obstacles to installation. Also, wireless signals are also subject to inference. Metal and concrete, which make up a significant percentage of the construction mass of most school buildings, tend to cause interference with wireless signals and a subsequent degradation in connection quality for the students and staff.

PLC Benefits Schools

Given these considerations, PLC systems measure up nicely compared to wireless options for use within education. And there is no comparison with traditional wired systems that require dedicated wiring and dedicated network ports in the walls unless a new building is being constructed. The balance of features and benefits offered by PLC is truly unique.

Now Orbital Data has added this technology to our offerings and can supply everything you need in one package. We do the installation; you can then move modems wherever you need them as long as a power outlet is available. We can lease the entire package and provide it on a 36 month low cost term. This also can qualify as internal network wiring through our E-rate program. Call us and we will assist you in filling out the necessary paperwork.

PLC maximizes your building's existing infrastructure:

- Electrical systems can now act as both power source and network port.
- The PLC system provides you with a low capital investment and through Orbital Data is E-rated.
- Turning electrical outlets into Internet access ports is convenient for staff; anywhere in the room where there's a receptacle, the Internet is quickly at hand.
- Organizations realize cost savings because installation labor costs are minimal compared to other options.
- Installation is quick; PLC systems can typically be installed in less than one day.
- Because there is no need to retrofit the building for new wiring, installation is non-disruptive and completely flexible.
- There are no building limitations in terms of age, especially important with older or historic structures.
- The system is scalable and can support up to 256 modems per gateway; additional gateways can be installed to achieve the desired number of connection points for any school.
- Current firmware supports 11mbps inbound and outbound. Average data rate at the modem is 4mbps.

With so many benefits to schools, it's clear that PLC technology has truly come of age. It has the potential to transform the old electrical wiring in your buildings walls into a new source of rich resources. The PLC unique technology allows, for the first time, schools to delivery distortion-free Internet service over existing infrastructure with the convenience, flexibility and portability required by today's educators.

Orbital Data Net has formed new relationships in order to better serve our client base

First news is that we have added Globalstar satellite phones to our mix. In providing solutions for continuity of business operations, it is a natural addition. We can lease or sell fixed as well as portable phones that all operate off of low earth orbiting satellites, anywhere.

Second news is that we have formed a relationship with a new VSAT provider that gives us new flexibility and service levels we have not been able to achieve with other satellite vendors. Voice over IP and video streaming are both built into this offer as native and we have begun to test this service with a military customer of ours. We are very excited about this exclusive arrangement and believe we now will be able to support projects that have been difficult or impossible to support in the past. We are still maintaining our role with Spacenet, but believe that this decision will better support some of the exotic needs we have been challenged with.

Thirdly, we are now deploying power line connectivity equipment in a number of locations. This remarkable technology uses the existing power structure to send and receive very high speed IP data both ways. Since it works well with teleconferencing gear and standard Internet access, we are beginning to test it with Polycom.

We will be offering the new Wild Blue Ka-band service once it is launched this summer. While this very low cost service is designed for residential customers, we are negotiating a commercial package to offer as well.

We now offer a complete line of engineering and product support for video systems, both in security and cable television operations. Under this group we also offer DSL, Voip and cable modem design and equipment distribution. This group also does agile C and Ku-band receive only systems and SMATV, such as the systems we are currently supplying the State of Missouri.

We have upgraded our web site and now offer our own ISP services at an incredibly good price. And finally, we have developed a joint venture with a leading manufacturer of DVR (Digital Video Recording) surveillance gear that is being used by the federal government. We will be offering this state-of-the-art technology to schools and other entities that require a high grade monitoring and recording capability remotely. Of course, we have designed it to inter-operate with our VSAT and power line technologies. For example, using our power line technology provides an Internet connection and power connection to the same AC plug for a camera monitoring site. Imagine cameras in the parking lot without any other wiring than the power connection?



Missouri Schools and Programs in the News

Popular Bluffs School District

Congratulations to Pam Lowe--Popular Bluffs eMINTS Teacher! Pam Lowe received notification from USA Today that her classroom websites was selected as an "Educator's Best Bets" website. This honor is accorded to only about 150 websites per year. You can see the page that names Pam's website at <http://www.usatoday.com/educate/home.htm> scroll down to the lower left-hand side, and see her site listed in the gray sidebar.

North St. Francis County School District

Congratulations to Marcie Mueller from North St. Francis County School District (Bonne Terre)! The CyberBee column for Multimedia and Internet @ Schools magazine is publishing an article titled, "Meet Me at the Fair" highlighting World's Fair and Exposition pre-WWII that will appear in the May/June 2004 issue. Marcie's wonderful WebQuest will be cited in the article including an annotation and link in the article. Marcie's use of imagery was complimented by the author. <http://www.cyberbee.com>



Copyright Question of the Month

Q. May a student copy, enlarge, reduce but not alter an unlimited number of images (cartoon, chart, diagram, graph, picture, or drawing), from a print source to create a final print product (e.g., bulletin board/display, brochure, flyer, scrapbook, portfolio, mural, diorama, term paper, etc.)?

A **No** Only a limited number of images may be copied, but not altered as long as:

1. the user adheres to the *brevity* guidelines. Only one of the following may be copied from a single book or periodical issue: one chart, graph, diagram, drawing, cartoon **or** picture *and*
2. the source of the image is cited within the product.



Mark Your Calendar

March 1	Newsline published online
March 10	METPA Forum: No Child Left Behind and Technology (See Newsline article for details)
March 24-25	METPA Technical Assistance for Technology Plan Review MOREnet Spring Technical Conference, Tan-Tar-A, Osage Beach, MO
March 25	Newsline articles due
March 31	District Technology Plans are due to DESE
March 31	FY05 eMINTS Applications due to DESE
April 1	Newsline published online
April 7-9	eMINTS Grant Reading
April 15-16	Technology Plan Reading
April 25	Newsline articles due



Upcoming 2004-2005 Conferences

March 1-3	Ohio SchoolNet Technology Conference 2004 Columbus, Ohio http://www.osn.state.oh.us/stateconf
March 9-10	RCET-SW Education and Technology Conference Springfield, MO www.rcet.net/Conf03/ConfCard.htm
March 10-12	MACUL 2004-Enhancing Education Through Technology Grand Rapids, Michigan http://www.macul.org/conferences
March 24-25	Higher Education Learning and Information eXchange (HELIX) 2004 MOREnet Tan-Tar-A, Osage Beach, MO http://www.more.net/conferences/helix2004
March 24-25	Connections 2004: MOREnet Spring Technical Conference Tan-Tar-A, Osage Beach, MO http://www.more.net/conferences
June 21-23	NECC 2004 New Orleans, LA
July 15-16	2004: An Odyssey of Learning Missouri Distance Learning (MoDLA) Conference Clarion Hotel, Springfield, MO MichelleNorgren@smsu.edu
October 3-5	Technology Exploration: Improving Teaching and Learning 2004 Missouri Educational Technology Conference Tan-Tar-A, Osage Beach, MO



From the Mailbag

CAMPAIGN CAM: A Student-Produced Video Contest

C-SPAN in the Classroom is pleased to announce CAMPAIGN CAM: A Student-Produced Video Contest for Middle and High School Students <http://www.c-span.org/classroom/campaigncam/>
****\$50,000 in prizes****Winning videos air on the C-SPAN Networks****Deadline May 17, 2004**** 2004 is an election year--a time when people think seriously about issues that affect our communities and our nation. C-SPAN's CAMPAIGN CAM is a competition inviting students to IDENTIFY AN ISSUE of interest and to then produce a video that creatively explores and persuasively presents a point of view on that topic.

National Academy of Engineering's Engineer Girl Website Essay Contest

Enter the National Academy of Engineering's Engineer Girl! Website Essay Contest. Engineers are dreamers. They think up things and figure out ways to make them happen. By the year 2020, engineers will have invented things and solved problems we can only dream about today. The

Challenge: Do you see problems with the way we (1) communicate, (2) treat the environment, (3) protect our health, (4) protect ourselves, our country, our property and belongings, or (5) the way we travel? Imagine that it's 2020 and the problem has been solved. How? Has a new invention been created? Have new processes been developed? For more details on how to enter and the cash prizes, visit www.engineergirl.org and follow the link to the essay contest <http://www.engineergirl.org/NAE/CWE/egedu.nsf/weblinks/KGRG-5CZHGL?OpenDocument>

Hardware Donation for Education

Sun Microsystems Academic Excellence Grant Program

The Sun Microsystems Academic Excellence Grant Program donates equipment to eligible organizations that have developed creative projects addressing the company's investment priorities and creating partnerships for success. The company's primary investment priorities are higher and K-12 education.

[Click here](#) for grant eligibility and restrictions.

Technology for Teaching

Hewlett Packard Technology for Teaching Grant Initiative

The Hewlett Packard Technology for Teaching Grant Initiative is designed to support the innovative use of technology in K-16 education, and to help identify K-12 schools and higher education institutions that Hewlett Packard might support with future grants. The K-12 Technology for Teaching Grant Initiative provides awards to K-12 public schools that are using a collaborative, team-based approach to implementing technology integration projects. [Click here](#) for much more about this program.

Professional Development Resource

www.learner.org

The Annenberg Foundation provides a wealth of resources for teachers and many of them are totally free. Check out their site and see what is available. Teachers can participate in video courses and ask for weekly updates on course offerings. The videos can also be purchased for use in school professional development projects.

The Dirksen Congressional Center

www.congressforkids.net

The Dirksen Congressional Center's site for kids -- "Congress for Kids" -- links students of all ages to Internet-based, interactive activities that "teach" about Congress, the federal government, and civic duty.

Students may think that the words "federal government" sound dull or boring, and may not understand what it has to do with them. Learning about government doesn't have to be boring. "Congress for Kids" gives students access to interactive, fun-filled experiences designed to help them learn about the foundation of our federal government and how its actions affect them. Although designed for students in grades four through high school, other students, teachers, parent, and interested citizens will find helpful, engaging activities, too.

Using appealing, full-color illustrations, sound, and engaging activities, this site will extend students' learning the basics about the American federal government. Uncle Sam is the guide through "Congress for Kids." He will introduce students to a new skill or bit of knowledge, review a skill they already have, or even test their knowledge.

ING Unsung Heroes

ING initiated the Unsung Heroes awards program in 1995, as a reflection of its commitment to the education community. The awards are given to K-12 educators pioneering new methods and techniques that improve student learning.

Educators submit applications describing projects they have initiated or would like to create. Their applications are judged on their innovative teaching methods, creative educational projects, and ability to make a positive influence on the children they teach.

Each year, 100 finalists are selected to receive \$2,000 awards. Award checks are made payable jointly to the recipient and to his or her school. At least one award will be granted in each of the 50 United States, provided one or more qualified applications are received from each state. Of the 100 finalists, three are selected for additional financial awards.

- First place gets an additional \$25,000
- Second place gets an additional \$10,000
- Third place receives an additional \$5,000

The 100 finalists are selected by Scholarship America (formerly Citizens' Scholarship Foundation of America), a national nonprofit, educational support and student aid service organization. The top three award winners are chosen each year by ING's Educators Advisory Board, which consists of seven distinguished educators from across the United States.

If you know of someone who leads or has an idea for an outstanding educational project, apply for the 2004 ING Unsung Heroes awards program today. Contact Scholarship America at (800) 537-4180. The deadline for application is April 30, 2004. Winners will be announced in fall 2004.

Are High School Graduates Being Prepared ForThe Real World?

<http://www.achieve.org/>

Citing the recent "American Diploma Project" report, the NY Times says the nation has a patchwork of state standards that are failing to produce high school graduates who are prepared either for college or for work, three education policy organizations say in a new report." The report recommended high school exit requirements be toughened and that all students, regardless of career intentions, take rigorous math and English courses. It urges that high school graduates master more English and math for their diplomas to signify readiness for jobs and college. It also recommends the creation of national standards that would turn the high school diploma into a "common national currency."

The diploma project is among several recent reports that urge improvement in high school education.

Source: NY Times, 2/10/04. For a copy of the report, see: <http://www.achieve.org/>

The NCLB Act: Another View Of Its Implementation And Impact

<http://www.gse.harvard.edu/>

Key elements of the No Child Left Behind Act are costing millions of dollars, placing major administrative burdens on school districts and producing limited results, according to a Harvard University study of ten other city school systems. "The reality for too many public educators is confusion and frustration as the (law) is leaving too many children - and teachers - behind," said Gary Orfield, co-director of the Harvard Civil Rights project. The report includes four studies on the changing federal role in education, on the efforts of the states to adapt to the new law and on the implementation of the early reforms at the local level and considering the whole system. Its focus is on understanding whether the NCLB Act is workable and effective as now implemented, and what the impacts at the state and local level imply for ultimate success. The report is critical of a provision of the law requiring school districts to allow students in low-performing schools to transfer to other district schools. Its researchers say that students who do transfer within urban districts often move to schools that aren't much better than the ones they leave.

Role Of Principal Leadership In Increasing Teacher Retention

<http://www.advocatesfored.org/principalstudy.htm>

National and local research indicates a teacher's decision to stay at a school largely depends upon the principal and his or her leadership in the school. Therefore Charlotte Advocates for Education (CAE), a local education fund, sought to understand the relationship between principals and teacher retention by studying local principals, particularly those in high needs schools, who have been more successful in retaining teachers while also increasing student achievement. Key findings can be found at the link above. In addition, the report includes specific recommendations for addressing principal recruitment and hiring, principal preparation and support, as well as the recommendation to re-examine the traditional leadership structure within our schools.

Report Gives High Grades For Maine Laptop Program

<http://www.state.me.us/mlte/index.html>

An independent report by Maine Education Policy Research Institute finds that students in the state who are using laptops are more engaged in learning and produce better-quality work, according to a report released that gives high grades to the state's two-year-old program. The report is based on thousands of responses from seventh and eighth grade students and their teachers. "More than four out of five teachers surveyed reported that students are more engaged in their learning, more actively involved in their own learning, and produce better quality work," says the report. However, some teachers, students and principals said there are continuing problems with the technology, although the problems have been diminishing. A separate report last month by the Mitchell Institute said laptops made a significant and positive impact when used by high school students for their schoolwork. In his State of the State address, the governor proposed to extend the laptop program to all Maine high schools beginning with next year's ninth graders.

Internet Sites of Interest

Cardmaker

www.mycardmaker.com

Create cards with clipart/photos from their site or upload your own photos. Simple and free!

The Stock Market Game

www.smgww.org

The Stock Market Game gives students the chance to invest a hypothetical \$100,000 in a real-time portfolio. They think they're playing a game. You know they're learning economic and financial concepts they'll use for the rest of their lives.

New York Times Student Learning Network

nytimes.com/learning/students/

World events indepth studies, a daily lesson plan to correspond with the news of the day, daily current events quizzes and theme based crossword puzzles.

NewsHour Extra's Teacher Resources

www.pbs.org/newshour/extra/teachers/index.html

Want to build your students' analytical thinking and critical analysis skills? Are you searching for ways to make your subject matter more relevant and engaging? NewsHour Extra is here to help!

CNN StudentNews

cnnstudentnews.cnn.com

Educators use CNN Student News in their classrooms for the news of the day, as well as segments that encourage student participation. It is easy to integrate into any lesson and is closed-captioned for use by hearing impaired or ESOL classes.

eThemes

Elections for Elementary Grades

emints.more.net/ethemes/resources/S00001234.shtml

These sites for younger students explain how primaries, caucuses, and general elections work. Find out the reason why people vote and learn how a single vote can make a difference. Includes an image of a sample ballot for the 2004 presidential primaries. There are links to eThemes Resources on the executive branch, U.S. presidents, and citizenship.

Elections for Upper Grades

emints.more.net/ethemes/resources/S00001240.shtml

These sites for older students explain the process of primaries, caucuses, and general elections. Learn about the electoral college and how many electoral votes each state can cast. Take an

interactive survey to find out which 2004 presidential candidate has views that are most similar to yours. Includes videos of campaign ads from previous elections. There are links to eThemes Resources on the executive branch, U.S. presidents, and elections for elementary students.

Teen Issues

emints.more.net/ethemes/resources/S00001230.shtml

These sites are about common issues that teens face, such as drinking and driving, gangs, television influences, and suicide. Read statistics about each of these issues and tips on how to cope. There is also information about conflict resolution and links to eThemes Resources on AIDS/HIV, drugs, smoking, and peer pressure.

Grammar: Interactive Writing Activities

<http://emints.more.net/ethemes/resources/S00001228.shtml>

These sites feature interactive grammar and writing sites that are fun to use with SMARTBoards. The online games and quizzes cover topics such as nouns, verbs, sentences, proofreading, capitalization, punctuation, plurals, and more. There is a link to an eThemes Resource on writing prompts and a link to the eThemes index that leads to many more resources on grammar and writing topics.

Health: Polio

<http://emints.more.net/ethemes/resources/S00001243.shtml>

These sites about polio explain how the disease is spread and the efforts to eradicate it by 2005. Find out where in the world there has been a recent increase in polio cases. See photographs documenting the fight against polio and explore interactive timelines to learn why new cases have drastically decreased since the 1950s. Read biographies about Jonas Salk and Albert Sabin, inventors of two different polio vaccines. Also learn about the iron lung and how it helped people with polio. Includes information about author Peg Kehret's book, "Small Steps: The Year I Got Polio."

Utah: State Symbols

<http://emints.more.net/ethemes/resources/S00001231.shtml>

Learn about Utah's state flower, animal, insect, gem, fish, cooking pot, folk dance, and more. Listen to the call of the state bird or the tune of the state hymn. Read about the history behind the symbols and view images.

Time Travel

<http://emints.more.net/ethemes/resources/S00001238.shtml>

These sites explore the abstract concept of time travel in terms that elementary children can understand. Find out how Einstein's discoveries lead some scientists to believe that time travel is possible. Read the problems that time travel could create for people living in the present. There are sites with time machines that let you explore different eras. Includes lists of children's books that feature time travel.

Updated eThemes

Author Study: Louis Sachar

<http://emints.more.net/ethemes/resources/S00000476.shtml>

These sites are about the life and work of author Louis Sachar. Includes interviews and articles. There are links to two eThemes Resources on his books.

Habitat: Grasslands

<http://emints.more.net/ethemes/resources/S00000685.shtml>

These sites have information about the different types of grassland habitats found throughout the world. Includes savannas, prairies, and steppes. Learn more about the climate and wildlife that are found in these ecosystems. There is also information about grasslands in Missouri and Utah. Includes a link to an eThemes Resource on habitats.

Habitat: Rainforests

<http://emints.more.net/ethemes/resources/S00000684.shtml>

These sites are about tropical and temperate rainforests. Experience the sights and sounds of rainforests in the U.S., Tasmania, and South America. Includes activities, puzzles, a movie and a

game, plus a list of rainforest books for children. There are links to eThemes Resources on Brazil, the children's book "The Great Kapok Tree," and habitats.

Holiday: Presidents Day

<http://emints.more.net/ethemes/resources/S00000981.shtml>

These sites offer ideas and activities for celebrating Presidents Day and the birthdays of George Washington and Abraham Lincoln. Includes biographies, timelines, memorials, and documents written by both men. There are several hands-on crafts, online quizzes, and games. Includes links to eThemes Resources on U.S. presidents and the executive branch.

Literature: "Holes" by Louis Sachar

<http://emints.more.net/ethemes/resources/S00000542.shtml>

Find information about the book, suggested classroom activities, discussion questions, and online quizzes. There is a link to an eThemes Resource on author Louis Sachar.

Math: Metric Measurement

<http://emints.more.net/ethemes/resources/S00000356.shtml>

These sites are about length, volume, mass, and temperature and the metric system. Learn the history of the system and what the prefixes mean. Includes several sites that do online conversions.

Math: Temperature

<http://emints.more.net/ethemes/resources/S00000872.shtml>

These sites explain the Celsius, Fahrenheit, and Kelvin scales for reading thermometers. There are several classroom activities for making thermometers and using them to read temperatures. Includes a temperature conversion chart. Also learn how crickets can be used to predict the temperature. There is a link to an eThemes Resource on metric measurement.

U.S. President: Abraham Lincoln

<http://emints.more.net/ethemes/resources/S00001102.shtml>

These sites are about Abraham Lincoln and include many primary documents. Learn about America's famous sixteenth president and the difficult time period in which he lived. Includes timelines, biographies, and famous speeches. View photographs of Lincoln and two memorials that honor him. There is also information about John Wilkes Booth and Ford Theatre. Includes links to eThemes Resources on the Emancipation Proclamation, the Civil War, U.S. Presidents, and President's Day.

U.S. President: George Washington

<http://emints.more.net/ethemes/resources/S00001103.shtml>

These sites are about George Washington, the first U.S. President. Read biographies, timelines, letters, and diaries. There is also information about the Washington Monument. Includes lesson plans, classroom activities, and online quizzes. There are links to eThemes Resources on presidents and President's Day.

Weathering and Erosion

<http://emints.more.net/ethemes/resources/S00000299.shtml>

These sites focus on the process and effects of weathering and erosion. See examples of landslides, valleys, and other results of erosion and weathering. Includes links to eThemes Resources on rocks and minerals and Missouri's landforms.

Drugs: Prevention Tips

<http://emints.more.net/ethemes/resources/S00000509.shtml>

These sites explain the effects of different types of drugs, including alcohol, tobacco, heroin, and cocaine. Learn tips for saying "no" to drugs and the dangers of using these addictive substances. Includes online quizzes, games, and movies.

Health: Smoking Dangers

<http://emints.more.net/ethemes/resources/S00001011.shtml>

These sites explain the negative consequences of smoking. Includes how tobacco endangers your health and the high costs of cigarettes. Learn the ingredients in a cigarette and why nicotine is addictive. There is information about Kick Butts Day, which takes place April 2, plus tips on how to

stop smoking. Includes movies, illustrations, lesson plans, and classroom activities. There is a link to an eThemes Resource on drugs.

Holiday: Mardi Gras

<http://emints.more.net/ethemes/resources/S00000304.shtml> These sites are about New Orleans's Mardi Gras festival. View a live shot of Bourbon Street or browse the many photographs showing the costumes and floats. Learn about the history of the parades and other fun facts.

Math: Fractions

<http://emints.more.net/ethemes/resources/S00000059.shtml>

These sites explain how to add, subtract, multiply, and divide fractions. There are several online tutorials and games. Topics include mixed numbers and simplifying fractions. Also includes some fraction word problems.

Peer Pressure

<http://emints.more.net/ethemes/resources/S00000458.shtml>

These sites focus on teaching older students how to combat peer pressure. Read examples of peer pressure and help students discover ways to deal with it. Includes topics such as pressure to try drugs, alcohol, and other risky situations. There is a link to an eTheme Resource on character education.

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